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**IN THE U.S. PATENT AND TRADEMARK OFFICE**

Appellants: James T. LaGrotta et al.  
Application No.: 09/919,020  
Art Unit: 2642  
Filed: July 31, 2001  
Examiner: Karen L. Le  
For: USE OF OVER-THE-AIR OPTICAL LINK  
WITHIN A GEOGRAPHICALLY DISTRIBUTED  
BASE STATION  
Attorney Docket No.: 129250-002151/US

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**APPELLANTS' RESPONSE TO COMMUNICATION MAILED SEPTEMBER 22,  
2006 REQUESTING SIGNATURE ON APPELLATE BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

September 28th, 2006

Sir/Madam:

In response to the Supervisory Examiner's request to provide a signed copy of Appellants' Reply Brief submitted on July 5, 2006 ("Brief") the Appellants enclose a signed copy of the Brief.

APPELLANT'S REPLY BRIEF  
U.S. Application No.: 09/919,020  
Atty. Docket: 129250-002151/US

Any further questions can be directed at John E. Curtin, Esq. whose contact information appears below.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,  
CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC.

By: 

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**APPELLANTS' REPLY BRIEF IN RESPONSE TO THE EXAMINER'S ANSWER**

**MAIL STOP APPEAL BRIEF - PATENTS**

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July 5th, 2006



**I. ARGUMENTS:**

**THE SECTION 103 REJECTIONS**

**(i) Appellants' Specification Does Not Disclose Non-co-located Equipment That Communicates Using A Wireless Optical Link**

In response to the Appellants' statements in their opening brief that Willebrand does not disclose non-co-located first wireless RF communication equipment and processing/control equipment the Examiner takes the position, in sum, that statements made by the Appellants in the specification amount to a disclosure of this feature of the claims.

Appellants respectfully disagree.

The Appellants note that it is not just any RF equipment and processing control equipment that is non-co-located. Rather, such equipment must be connected by "wireless optical communication equipment". In taking her position, the Examiner appears to ignore the fact that the non-co-located antenna 110 and control equipment 120 in Fig.1 are connected by a cable 130.

Backing up somewhat, include both the feature of "wireless optical communication equipment" that communicates "signals between the first wireless RF communication equipment and processing and control equipment" and that the RF and processing/control equipment be non-co-located. Said another way, first, the RF and processing/control equipment in claim 1 must communicate over a wireless optical link, and, second, while doing so these two pieces of equipment are not co-located.

The Examiner appears to read the claim in reverse (or impermissibly parse the claim) when applying the art of record. By doing so the Examiner, in effect, ignores the fact that the equipment which is communicating using a wireless optical link must be non-co-located.

In sum, Appellants' position is that the alleged prior art discussed in the specification does not disclose wireless optical communication equipment being adapted to communicate signals between first wireless RF communication equipment and processing and control equipment, where the first wireless RF communication equipment and the processing/control equipment are non-co-located.

**(ii) No Proper Motivation To Combine**

Even if the Appellants' statements in their specification and Willebrand separately disclose some of the features of the claimed inventions, the Appellants' note that the Examiner has not set forth a proper motivation to combine these two references.

In the Examiner's Answer she states that "It is always desirable to use wireless instead of cable in expensive land area to reduce cost without reducing the signal of the system". This "motivation" however is not found or suggested in Willebrand. Instead, it is only found in the instant specification's description of the disadvantages of equipment that is connected as shown in Fig.1 (i.e., by a cable). In sum, the instant specification has been used by the Examiner as a roadmap in rejecting the claims based on obviousness; this is impermissible. Accordingly, Appellants respectfully submits that the subject matter of claims 1-7, 10-13, 16-17, 20-25 and 28-30 would not have been obvious to one of ordinary skill in the art upon reading the disclosures of the alleged admitted prior art and Willebrand.

With respect to the separate rejections of claims 17-19, 22-25 and 28-30, the Appellants respectfully reiterate the positions set forth in their opening brief.

**II. CONCLUSION:**

Appellants respectfully request that the members of the Board reverse the Examiner's rejection of claims 1-7, 10-13, 16-17, 20-25 and 28-30 and allow these claims.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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**APPENDIX A**  
**CLAIMS APPENDIX**

1. (Previously Presented) An RF base station apparatus, comprising:  
first wireless RF communication equipment; and  
wireless optical communication equipment coupled to the first wireless RF communication equipment,  
the wireless optical communication equipment being adapted to communicate signals between the first wireless RF communication equipment and processing and control equipment, and  
the first wireless RF communication equipment and the processing and control equipment being non-co-located.
2. (Original) The apparatus of claim 1, wherein the first wireless RF communication equipment is at a significant distance from the other equipment of the RF base station.
3. (Original) The apparatus of claim 2, wherein the significant distance is at least ten meters.
4. (Original) The apparatus of claim 1, wherein:  
the first wireless RF communication equipment is adapted to receive signals that conform to a predefined wireless communication standard; and

the signals that the wireless optical communication equipment is adapted to communicate represent information that conforms to the predefined wireless communication standard.

5. (Original) The apparatus of claim 1, wherein the first wireless RF communication equipment comprises an RF antenna.

6. (Original) The apparatus of claim 5, wherein the first wireless RF communication equipment further comprises an RF-module.

7. (Original) The apparatus of claim 1, wherein the wireless optical communication equipment comprises a telescope.

8. (Cancelled)

9. (Cancelled)

10. (Previously Presented) An RF base station, comprising:  
an RF antenna;

first wireless optical communication equipment coupled to an RF communication equipment;

a processing and control section, the processing and control section being at a significant distance from the RF antenna;

second wireless optical communication equipment coupled to the processing and control section; and

the first wireless optical communication equipment being adapted to communicate with the second wireless optical communication equipment.



11. (Original) The apparatus of claim 10, wherein:

the RF antenna is adapted to receive signals that conform to a predefined wireless communication standard; and

the signals that the wireless optical communication equipment is adapted to communicate represent information that conforms to the predefined wireless communication standard.

12. (Original) The RF base station of claim 10, further comprising:

at least one other RF antenna; and

at least a third wireless optical communication equipment, each being adapted to communicate with the second wireless optical communication equipment; one wireless optical communication equipment being coupled to each RF antenna.

13. (Original) The RF base station of claim 10, wherein the significant distance is at least ten meters.

14. (Cancelled)

15. (Cancelled)

16. (Original) The RF base station of claim 10, wherein:

the first wireless optical communication equipment comprises a first telescope; and

the second wireless optical communication equipment comprises a second telescope.

17. (Previously Presented) A method, comprising the steps of:  
receiving an RF signal at an RF antenna of an RF base station;  
modulating a signal representing the RF signal onto an optical signal;  
and

transmitting the optical signal by wireless optical communication equipment to a processing and control section of the RF base station, the processing and control section being at a significant distance from the RF antenna.

18. (Previously Presented) The method of claim 17, further comprising the steps of:

receiving the optical signal on second wireless optical communication equipment of the RF base station,

the second wireless optical communication equipment coupled to the processing and control section of the RF base station; and

obtaining the signal representing the RF signal from the optical signal.

19. (Previously Presented) The method of claim 17, wherein:

signals received by the RF antenna conform to a predefined wireless communication standard; and

the signals transmitted by the wireless optical communication equipment represent information that conforms to the predefined wireless communication standard.

20. (Cancelled)

21. (Cancelled)

22. (Original) The method of claim 17, further comprising the step of processing the RF signal to produce a signal that can be modulated onto an optical signal, wherein this step is performed prior to the modulating step.

23. (Original) The method of claim 17, wherein the wireless optical communication equipment comprises a telescope.

24. (Previously Presented) A method, comprising the steps of:

obtaining a signal at a processing and control section of equipment of an RF base station, the processing and control section of equipment being at a significant distance from an RF antenna;

modulating a signal representing the signal onto an optical signal; and  
transmitting the optical signal over wireless optical communication equipment to the RF antenna of the RF base station.

25. (Original) The method of claim 24, further comprising the steps of:

receiving the optical signal on second wireless optical communication equipment of the RF base station, the second wireless optical communication equipment coupled to the RF antenna; and

obtaining the signal from the optical signal;

obtaining an RF signal from the signal;

transmitting the RF signal on the RF antenna.

26. (Cancelled)

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27. (Cancelled)

28. (Original) The method of claim 24, wherein the wireless optical communication equipment comprises a telescope.

29. (Previously Presented) An RF base station, comprising:

an RF antenna; and

a telescope coupled to the RF antenna, the telescope being adapted to communicate signals between the RF antenna and processing and control equipment of the RF base station,

the RF antenna being at a significant distance from the processing and control equipment of the RF base station, and wherein

signals received by the RF antenna conform to a predefined wireless communication standard, and

the signals communicated by the telescope represent information that conforms to the predefined wireless communication standard.

30. (Original) The apparatus of claim 29, wherein the significant distance is at least ten meters.